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<sup>3</sup> Timber Harvest  
in California, 1962

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## Foreword

In 1963, the Pacific Southwest Forest and Range Experiment Station conducted a survey of 1962 timber products output in California. This paper reports the results for primary wood products--roundwood logs and bolts.

This kind of survey, a part of the nationwide Forest Survey, is conducted about every five years. The 1947 survey, covering 1946 output, was the first in the series. Other surveys were made in 1952 and 1957.

The information collected on timber products output is combined with information on woods residues to provide an estimate of total timber cut. This, in turn, is analyzed with data on timber inventory and growth in reviewing the State and national timber outlook. Statistics of timber products output provide information valuable to the timber industry, state and county planning commissions, economists, foresters, and others concerned with the formation of forestry programs and policies.

Many individuals and companies of California's timber industry contributed information for use in this report. The industry trade associations gave their support. Numerous persons in the California Division of Forestry and on the National Forests helped to bring the Station's industry mailing lists up to date. All of this assistance is gratefully acknowledged.

Grateful acknowledgement is also made to colleagues for assistance in numerous ways; particular mention is due W. Y. Pong for making the questionnaire canvass, to D. D. Oswald for field contacts, to R. C. Chapman for programing computer data processing, to members of the Pacific Southwest Station's data processing section for key punching and processing data, and to J. D. Kasile for checking statistics.

California's harvest of timber products<sup>1</sup> in 1962 was second highest in the United States. This production constituted nearly 10 percent of the total national cut from growing stock. Only Oregon produces more. Washington runs a close third.

Timber is cut in California for many forest products, including sawlogs, peeler logs, pulpwood, fence posts, grapestakes, shingles, shakes, crossties, poles, piling, posts, mine timbers, charcoal, and fuelwood. Although many timber commodities are produced, for many years 98 percent or more of the total timber cut in the State has gone into sawlog and peeler log production. Only 2 percent goes into all other products. Since 1956 the proportion of the total cut used for peeler logs has increased from 7.6 to 13.1 percent and sawlog production has suffered a corresponding decline.

The timber harvest, by products, in 1962 was as follows (see also table 1, appendix):

Product:	Timber harvest	
	(MMBF)	(Percent)
Sawlogs	4,752	85.3
Veneer logs and bolts	728	13.1
Split products	25	.4
Fuelwood	27	.5
Pulpwood	22	.4
Poles	10	.2
Shingle and shake logs and bolts	3	.1
Piling	2	(2/)
Mine timbers	1	(2/)
Round posts	(1/)	(2/)
Total	5,570	100.0

<sup>1</sup>112 thousand board feet, equivalent.

<sup>2</sup>Less than 0.1 percent.

Species harvested. --Douglas-fir led all species in total output--some 2.1 billion board feet were harvested. Redwood and ponderosa pine each had less than half the production of Douglas-fir and were close together in second and third places, respectively. These were followed by true firs,

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<sup>1</sup>The terms "timber harvest," "timber cut," "timber production," and "timber products output" are used synonymously in this report in referring to the net volume of roundwood removed from the forest for manufacture or use. These terms do not include inventory volume left on the ground as woods residue after logging, nor do they refer to the product manufactured from logs, i.e., lumber.



fourth; and sugar pine, fifth. The cut of hardwoods is negligible, amounting to only 1 percent of the total. The harvest, by species, in 1962 was as follows (see also table 1, appendix):

Species:	Timber harvest	
	(MMBF)	(Percent)
Douglas-fir	2, 134	38
Redwood	939	17
Ponderosa and Jeffrey pine	881	16
True firs	857	15
Sugar pine <sup>1</sup>	399	7
Other softwoods	174	3
Hardwoods	26	1
Undistributed <sup>2</sup>	160	3
Total	5, 570	100

<sup>1</sup>Includes western white pine.

<sup>2</sup>Estimate for nonreporting operators plus volumes reported without species breakdown.

Where timber was cut. --California's timber industry is concentrated in the northern part of the State. In 1962 southern California accounted for only six-tenths of 1 percent of the timber harvest. Southern California in this case is considered to include all counties south of the east-west line formed by the northern boundaries of San Luis Obispo, Kern, and San Bernardino counties.

Counties in the redwood belt together produced 44 percent of the State's total cut. Three of the highest-producing five counties were from this region. Humboldt County led all others with 25 percent of the total timber harvest. In 1962, counties ranked as follows in timber production (see also table 2, appendix):

Rank and County:	Timber harvest	
	(MMBF)	(Percent)
1 Humboldt	1, 396	25.1
2 Mendocino	605	10.9
3 Shasta	386	6.9
4 Siskiyou	373	6.7
5 Del Norte	302	5.4
6 Trinity	291	5.2
7 Plumas	206	3.7
8 El Dorado	184	3.3
9 Lassen	148	2.7
10 Tehama	146	2.6
All others	<sup>1</sup> /1, 533	27.5
Total	5, 570	100.0

<sup>1</sup>Includes volume of all products for which county of origin was not reported and estimates for nonreporting operators.



## Timber Products Output

Sawlogs and peeler logs in particular deserve detailed attention because they compose so large a share (85 and 13 percent, respectively) of total timber products output. Additional details are also given for other products. The appendix in this report provides information on survey procedures and includes tables 1 to 18.

### Sawlogs

During 1962, the California harvest of sawlogs amounted to nearly 4.8 billion board feet--85.3 percent of the total output of roundwood. Douglas-fir, the favored species, accounted for 32.2 percent of sawlog volume. Other species of major importance to the sawmill industry were ponderosa and Jeffrey pine, redwood, true firs, and white pines. These species along with Douglas-fir together accounted for nearly 94 percent of the volume cut. Hardwoods were rarely cut for sawlogs and then only for specialty mills in one part of the State. Only one-tenth of 1 percent of sawlog volume came from hardwood species. Sawlog production in 1962, by species group, was as follows (see also table 3, appendix):

Species group:	Sawlog production	
	(MMBF)	(Percent of re-ported volume)
Douglas-fir	1,488	32.2
Redwood	907	19.6
Ponderosa and Jeffrey pine	858	18.6
True firs <sup>1</sup>	798	17.3
Sugar pine <sup>2</sup>	394	8.5
Western hemlock	4	.1
Sitka spruce	5	.1
Other softwoods	161	3.5
Hardwoods	4	.1
Total, reporting operators	4,619	100.0
Estimate for non- reporting oper- ators	133	
Total	4,752	

<sup>1</sup>Includes white, red, and grand fir.

<sup>2</sup>Includes western white pine.

### Number and Size of Mills

Most of California's sawlog output was delivered to California mills. Only 2.7 percent of the harvested volume was exported (table 4, appendix). Most of the exported logs went to mills in southern Oregon and Nevada. Some went to the Orient.

In 1962, there were 297 known active sawmills in California and 64 mills in operable condition but known to be idle. For ease of comparison, active mills were grouped according to volume of sawlogs

received. The industry's largest mills--that is, those with annual receipts exceeding 25 million board feet--accounted for 59 percent of the total sawlog receipts in the State. Only 21 percent of the reporting mills were in this size-class. On the other end of the scale, 12 percent of California's sawmills had log receipts of 1 million board feet or less during 1962. Mills in this size-class received a mere 0.2 percent of the total. Size of mills in 1962 was as follows (see also table 5, appendix):

Mill size-class: <sup>1</sup>	Mills	
	(Number)	(Percent of reported volume)
25 MMBF or more	59	59.0
15 to 24.9 MMBF	43	17.7
10 to 14.9 MMBF	47	13.2
5 to 9.9 MMBF	43	7.4
1 to 4.9 MMBF	49	2.5
Less than 1 MMBF	34	.2
Total, reporting mills	275	100.0
Nonreporting mills <sup>2</sup>	22	
Total	297	

<sup>1</sup>Rated by 1962 log receipts.

<sup>2</sup>Receipts by the individual nonreporting mills is unknown.

### Sawlog Production, by Counties

Sawlogs were produced in 40 of California's 58 counties in 1962, but 69 percent of the cutting was concentrated in eight counties of northern California. The 10 leading counties are ranked below according to sawlog output. Humboldt County, as for many years, leads all others with 22.1 percent of the total sawlog production.

Rank and County:	Sawlog cut	
	(MMBF)	(Percent of reported volume)
1 Humboldt	1,022	22.1
2 Mendocino	546	11.8
3 Shasta	383	8.3
4 Siskiyou	372	8.1
5 Trinity	288	6.2
6 Plumas	205	4.4
7 Del Norte	197	4.3
8 El Dorado	183	4.0
9 Lassen	147	3.2
10 Tehama	144	3.1
All others	1,132	24.5
Total, reporting operators	4,619	100.0
Estimate for non-reporting operators	133	
Total, sawlog production	4,752	

## Sawlog Receipts, by Counties

The eight counties having the greatest sawlog production were also those with the largest sawlog receipts. Their total sawlog receipts at mills amounted to 69 percent of California's total. Humboldt County logged 22.1 percent and received 22.8 percent of the total reported sawlog cut in California. Ranking of counties in 1962 was as follows (see also table 6, appendix):

Rank and County:	Sawlog receipts	
	(MMBF)	(Percent of reported volume)
1 Humboldt	1,027	22.8
2 Mendocino	594	13.2
3 Siskiyou	401	8.9
4 Shasta	385	8.6
5 Plumas	239	5.3
6 Glenn-Tehama <sup>1</sup>	187	4.2
7 Trinity	168	3.7
8 Del Norte	147	3.3
9 El Dorado	137	3.0
10 Napa-Sonoma <sup>1</sup>	131	2.9
All others	1,083	24.1
Total reporting mills	4,499	100.0
Estimate for non-reporting mills	123	
Total California mills <sup>2</sup>	4,622	
Exported sawlogs	130	
Total sawlog production	4,752	

<sup>1</sup>Combined to avoid disclosure of individual mills.

<sup>2</sup>Does not include imports.

For those counties playing a smaller part in the lumber industry of California, the variation between log harvest and mill receipts was more irregular. Some counties bordering the commercial forest zones exported their entire cut to counties having operating mills.

## Sawlog Production from Dead Timber

Slightly more than 4 percent of the sawlogs produced came from dead timber; ponderosa and Jeffrey pine led all species (see also table 7, appendix):

Species:	Total saw-			Species:	Total saw-		
	Dead timber	(Per cent)	log produc-		Dead timber	(Per cent)	log produc-
	(MBF)		tion (Percent)		(MBF)		tion (Percent)
Douglas fir	33,350	16.4	0.7	Western hemlock	696	0.3	(2/)
Ponderosa & Jeffrey pine	76,846	37.7	1.7	Sitka spruce	0	0.0	0.0
Redwood	17,817	8.7	.4	Other soft-woods	5,717	2.8	.1
True firs <sup>1</sup>	46,547	22.8	1.0	Hardwoods	0	0.0	0.0
Sugar & western white pine	22,994	11.3	.5	Total	203,967	100.0	4.4

<sup>1</sup>Includes white, red, and grand fir.

<sup>2</sup>Less than 0.1 percent.

## Veneer Logs and Bolts

During 1962, 728 million board feet of peeler logs were harvested from California's forest lands. This was 13 percent of the total harvest of roundwood in California during that year. Most of this peeler log volume went to California plywood and veneer plants for manufacturing. Only 16 million board feet of peeler logs were shipped out of the State.

### Peeler Log Production, by Species

Peeler log production was more than 36 percent higher in 1962 than in 1956. Douglas-fir was the predominant species cut for veneer logs in 1962, accounting for more than 87 percent of the 728 million board feet of total production. True firs were second with nearly 8 percent, and various other softwood and hardwood species made up the remaining 5 percent. Peeler log production, by species, in 1962 was as follows (see also table 8, appendix):

Species:	Peeler log production	
	(MBF)	(Percent)
Douglas-fir	637,607	87.6
True firs <sup>1</sup>	56,203	7.7
Ponderosa and Jeffrey pine	19,524	2.7
Redwood	6,777	.9
Sugar pine	4,710	.7
Sitka spruce	1,260	.2
Western hemlock	520	.1
Other softwoods	1,060	.1
Hardwoods	191	(2/)
Total	727,852	100.0

<sup>1</sup>Includes white, red, and grand fir.

<sup>2</sup>Less than 0.1 percent.

### Peeler Log Production, by Counties

Humboldt County led all California counties in the production of peeler logs, accounting for 49 percent of the total volume. Del Norte was second, with 14 percent; Siskiyou, third; and Mendocino, fourth. Twelve other counties produced the remainder:

County:	Peeler log production	
	(MMBF)	(Percent)
Humboldt	357	49.0
Del Norte	102	14.0
Siskiyou	80	11.0
Mendocino-Sonoma- Santa Cruz <sup>1</sup>	64	8.8
All others	125	17.2
Total <sup>2</sup>	728	100.0

<sup>1</sup>Combined to avoid disclosure of individual plants.

<sup>2</sup>Includes exports.



## Peeler Log Receipts, by Counties

The veneer and plywood industry in California is concentrated primarily in the counties adjoining the north coast: 28 of the 39 plants operating during 1962 were located along the coast between Del Norte and Santa Cruz counties. All remaining plants were situated from Calaveras northward to Siskiyou County.

About one-half of all peeler logs harvested in 1962 were delivered to plants in Humboldt County. Del Norte took in about 15 percent, and Siskiyou about 10 percent of the peeler log receipts. Counties ranked as follows (see also table 9, appendix):

County:	Active plants	Peeler log receipts	
	(No. )	(MMBF)	(Percent)
Humboldt	16	359	51
Del Norte	7	106	15
Siskiyou	4	69	10
Mendocino- Sonoma-Santa Cruz <sup>1</sup>	5	64	9
All others	7	114	15
Total	39	<u>2/712</u>	100

<sup>1</sup>Combined to avoid disclosure of individual plants.

<sup>2</sup>Does not include imports or exports.

## Plant Size-Class

The volume of logs received during 1962 was used as the basis for segregating plywood and veneer plants into size-classes. The 20 largest plants receiving 15 million board feet or more of logs accounted for 81 percent of the peeler volume delivered to California plants. On the other hand one-third of the plants received less than 10 million board feet each and could account for only 6 percent of the total volume. Number of plants in each plant-size was as follows (see also table 10, appendix):

Plant-size class:	Active plants	Peeler log receipts	
	(No. )	(MMBF)	(Percent)
25 MM bd. ft. or more	11	448.9	63
15 to 24.9 MM bd. ft.	9	132.3	18
10 to 14.9 MM bd. ft.	7	89.1	13
5 to 9.9 MM bd. ft.	3	25.4	4
1 to 4.9 MM bd. ft.	5	14.4	2
Less than 1 MM bd. ft.	4	1.9	( <u>1/</u> )
Total	39	<u>2/712.0</u>	100

<sup>1</sup>Less than 0.5 percent.

<sup>2</sup>Does not include exports or imports.

## Peeler Log Production from Dead Timber

Peeler logs were produced almost entirely from green timber in 1962. Dead timber accounted for only nine-tenths of 1 percent of the State's total peeler log cut. The peeler logs harvested from dead timber came entirely from three counties: Humboldt, Del Norte, and Trinity. More peeler logs were produced from dead Douglas-fir (97 percent) than from all other species of dead timber (see also table 11, appendix):

Species:	Dead timber	
	(MBF)	(Percent)
Douglas-fir	6,681	97.4
Ponderosa and Jeffrey pine	6	.1
True firs <sup>1</sup>	120	1.8
Sugar pine <sup>2</sup>	27	.4
Other softwoods	23	.3
<sup>2</sup> Total	6,857	100.0

<sup>1</sup>Includes white, red, and grand fir.

<sup>2</sup>Includes western white pine.

## Pulp Logs and Wood Fiber Materials

Compared with the lumber, plywood, and veneer industry, the timber harvest for round pulpwood is very small--less than one-half of 1 percent of the total timber harvest. California had 11 plants that used raw wood as a fiber producing material during 1962 (table 12, appendix). These included two pulp mills, one hard board plant, four particle board plants, and four roofing felt and floor covering plants. The wood requirements of these plants were supplied almost entirely from residues obtained from sawmills, veneer and plywood plants, and remanufacturing plants.

The equivalent of 567.5 thousand units<sup>2</sup> of pulpwood, pulp chip, and other wood residues were delivered to California's fiber and board plants in 1962. This volume represented a 27 percent increase since 1956.<sup>3</sup>

## Raw Materials Received

Pulp chips dominated the raw materials received at plants during 1962, accounting for nearly 85 percent of all deliveries; round pulpwood made up less than one-tenth of the total. The balance of receipts was in veneer cores, sawdust, wood shavings, and wood flour.

## Species Received

The species composition of chips, mill ends, shavings, sawdust, and wood flour is usually an indeterminate mixture of several species. Because of its dark color, redwood is usually kept separate from the whitewood species. Softwood receipts predominated. In 1962 about 86 percent of the raw woody materials received at California plants were of softwood species. Eucalyptus made up 81 percent of the hardwood receipts, and cottonwood and miscellaneous hardwood the remainder.

<sup>2</sup>A unit 2,400 pounds bone-dry weight.

<sup>3</sup>May, R. H. Wood receipts by fiber and board plants in California, 1956. U.S. Forest Serv. Calif. Forest & Range Expt. Sta. Forest Survey Release 29, 3 pp. 1957.

## Poles, Piling, and Mine Timbers

About 2,818,000 cubic feet of timber were harvested for poles, piling, and mine timbers in California in 1962. Most of this harvest came from young sawtimber because of its desirable size. This volume is equivalent to about 13,192,000 board feet (Internatl. 1/4-inch log rule) in this size of timber. Poles accounted for 74 percent of this volume, piling 16 percent, and round and hewn mine timbers for 10 percent.

Two-thirds of the total volume was Douglas-fir, nearly one-third was ponderosa pine, other conifers less than 1 percent, and eucalyptus slightly more than 1 percent.

Trinity County lead all others in volume of poles and piling produced with nearly 21 percent of the total. Mendocino and Shasta Counties tied with 18 percent each, and Nevada County produced 17 percent. These four counties accounted for 74 percent of the total reported production (table 13, appendix).

Production of round, hewn, and split mine timbers in 1962 was estimated to be 279,000 cubic feet or the equivalent of about 1,339,000 board feet (Internatl. 1/4-inch log rule). Most of this volume was produced from conifer species. Production of mine timbers from hardwoods was reported only from southern California.

Pole and piling production in 1962 was less than 1956 production by 51 percent and 44 percent, respectively. On the other hand, mine timber production was estimated to be 64 percent higher than in 1956.

## Split Products

About 3,030,000 cubic feet of timber, equivalent to about 24,844,000 board feet (Internatl. 1/4-inch log rule), were harvested as split products in 1962 (table 14, appendix). This is only slightly greater than the 1956 production. These hand-split commodities consist largely of fence posts and rails, grape stakes and cross-arms, bean poles, shakes, and fence paling and pickets.

Most split products--96 percent of California's production in 1962--are made from coast redwood because of its durability, ease of splitting, and availability in commercial timber stands. Incense-cedar provided 2 percent of the State's production in 1962, giant sequoia 1 percent, and the remaining 1 percent was made up of western red cedar, sugar pine, and miscellaneous softwoods. About 28 percent of the total production came from dead, windfallen, and salvage timber.

Ninety-three percent of the 1962 production came from five redwood region counties (table 15, appendix). Humboldt County led with 41 percent, Mendocino 24 percent, Del Norte 15 percent, Sonoma 9 percent, and Monterey 4 percent. The remaining 7 percent was produced in 15 other counties.

Three commodities made up 84 percent of total production. Grape stakes led with 43 percent, fence paling 23 percent, fence posts 18 percent. The remaining 16 percent was made up of nine other minor products.



## Shingle and Sawed Shake Logs and Bolts

This category includes logs and bolts harvested for the manufacture of shingles and sawed shakes (split one side, sawed on the other). In 1962, the industry harvested 2,464,000 board feet of this material in California (table 16, appendix). When manufactured into products this volume of timber would yield about 25,870 squares of shingles and sawed shakes. This volume is enough to "roof" about 1,725 average size houses.

Humboldt County was the leading producer--accounting for 76 percent of the timber harvested for these products. Tulare was second with 11 percent. The remaining 13 percent was reported from five other counties: Del Norte and Mendocino on the coast and Fresno, Placer, and Tehama inland.

More coast redwood was cut than any other; it accounted for more than 80 percent of the total harvest. Giant sequoia, mostly from wind-falls, made up 11 percent. Sugar pine, incense-cedar, and western red-cedar made up the balance. More than half (52 percent) of the total harvest was reported to have come from dead timber. Total production from dead material probably was somewhat higher because the source of nearly 4 percent of total production was not reported.

Timber harvested for sawed shakes and shingles is on the decline. The 1962 cut was 36 percent below 1956 production. The number of active mills was down from 26 in 1956 to 15 in 1962, a 42-percent drop.

## Fuelwood

Fuelwood consists of firewood and charcoal wood. It comes from two sources: roundwood and plant residues.

Some 20,414 cords of hardwoods were cut during 1962 for charcoal production (table 17, appendix). Of the known species that were cut, the oaks led all other species with 93 percent of the reported volume. The balance was composed largely of madrone and California laurel (peppewood). Information on species was limited, no species data being reported for 58 percent of the total cut. More than 80 percent of the timber cut for coaling was in three coastal counties: Humboldt, San Benito and San Luis Obispo. The remaining production was centered on the west side of the central Sierra Nevada.

Firewood produced in the "round" was estimated at slightly more than 52,000 cords. The equivalent of an additional 2,183,000 cords of plant residues (largely from sawmills and peeler plants) were used both for domestic and industrial fuel and a small amount was processed into charcoal.

## Roundposts

Industrial production of roundposts was almost negligible in 1962 (table 18, appendix). A total harvest of 10,000 cubic feet (equivalent to about 112,000 board feet in this size material) was reported. Approximately half of this was produced in Amador County. Most of the production was from softwood species. These data were obtained from concentration yards and preservative plants and public records. But no attempt was made to determine the volume of posts cut, largely from noncommercial species, on farms and ranches for their own use.

## Appendix

### Survey Procedure

A mailing list of all known active mills, plants, concentration yards, timber operators, and processors was compiled in cooperation with the California Division of Forestry, National Forest Supervisors, industry trade associations, U. S. Bureau of Mines, local port authorities, and county assessors.

Questionnaires were mailed to sawmills, and veneer and plywood plants; pulp, hard and particle board, and roofing felt plants; post, pole, and piling processors; shingle and shake mills, underground mines; split products operators and concentration yards; resident and nonresident (out-of-state) exporters of logs; and excelsior producers.

The questionnaires were designed to obtain information on the volume of roundwood harvested, giving breakdowns by individual mills and plants, and showing species received, by product type (sawlog, peeler log, shingle bolt, etc.), county of origin and county of receipt, live and dead material, and volume obtained from each of four ownership classes. Information was also requested on production, use or receipts of plant residues, by residue type, or both.

Second, and in some cases, third mail requests were sent to operators who failed to reply to earlier requests. Mail replies were received from four-fifths of the active timber operators. In industries with only a few operators, such as veneer-plywood; pulp, particle board and fiber, etc., all nonreplying operators were visited to get a 100-percent return. A random sample of nonreplying operators was selected for each industry for which complete coverage was not obtained (e.g., sawmills, nonresident log exporters, and split products) to provide a valid statistical estimate for this group. Sample operators were then visited by the enumerator to obtain the desired information.

Information on timber cut for posts, poles, piling, and split products was obtained largely from concentration yards, processing and preservative plants because of the large number of individual operators and the rapid changeover of people engaged in the industry. Timber volumes were reported in local use log rules and other units of measure and were converted to International 1/4-inch log rule and to cubic-foot equivalents as a common reporting base.

Listed below are the number of active operators in each industry in 1962, the number of replies received, the number of field contacts, and the number of operators whose receipts or production was estimated by sampling:

	Known active operators	Replies	Field contact	Receipts or production estimated by sampling
Industry:	(Number)			
Sawmills	297	253	22	22
Veneer & plywood	39	36	3	0
Post, pole & piling	21	21	0	0
Split products	161	119	12	30
Sawed shake & shingles	15	10	5	0
Pulp, particle & hard board & fiber	11	11	0	0
Log exporters:				
Resident	7	7	0	0
Non resident	23	9	5	9
Underground mines <sup>1</sup>	45	40	5	0
Total	619	506	52	61

<sup>1</sup>Mines of 1,000 tons of ore production and greater in 1962.

### Statistical Accuracy

In varying degrees, all data in this report are subject to possible errors. Errors could have been introduced through mistakes in measuring, tabulating, and reporting, or through sampling procedures. Errors may or may not be compensating. Except for sampling errors there is no way of measuring them, but the chances of human error were reduced as far as possible by following detailed plans, by training of personnel, and by careful supervision and checking of the work.

All returned questionnaires were reviewed for reasonableness, consistency, and completeness. Those reports that needed verification or completion were clarified by further contact with the originators. In this manner it is believed that reporting errors were minimized. Tabulating and computational errors were held to a minimum by use of electronic data processing machines and programed cross-checks.

Sampling error accounts for errors that arise from taking a sample rather than making a complete inventory or measurement; it does not include possible errors due to human or machine mistakes or incomplete lists. The sampling error of an estimate is given here in terms of one standard error, i. e., the range about the estimate within which the odds are two to one that the value based on 100-percent coverage would fall.

The nationwide Forest Survey has set the maximum acceptable sampling error for timber harvested from growing stock at 15 percent per billion cubic feet. The survey reported in this paper bettered the national maximum by a wide margin. The sampling error for sawlog production was calculated to be  $\pm 2.4$  percent; for the split products harvest it was  $\pm 2.8$  percent. For the total timber harvest (excluding round fuelwood) the sampling error was  $\pm 2.1$  percent. This is equivalent to a sampling error of  $\pm 1.85$  percent per billion cubic feet for the total timber harvest of 793,414,000 cubic feet (excluding fuelwood). Data on timber harvested for the following products included no sampling errors because the output for all known operations was obtained by canvass: peeler logs; pulp and fiber; sawed shake logs and shingles; posts, poles, and piling; and mine timbers. Sampling error for round fuelwood, cut mostly from noncommercial forest land and from nongrowing stock, was not calculable as estimated total production (less than 1 percent of the total harvest) was compiled from a variety of uncontrolled sources and records. This omission is considered negligible.



Table 1.--Timber harvest in California, by commodity and species, 1962<sup>1</sup>

Commodity	Total volume	Douglas-fir	Ponderosa pine <sup>2</sup>	Redwood <sup>3</sup>	True firs <sup>4</sup>	Sugar pine <sup>5</sup>	Western hemlock	Sitka spruce	Other softwoods	Oaks	Other hardwoods	Undistributed <sup>6</sup>
	MBF <sup>7</sup> Percent											
Sawlogs	4,751,900 85.3	1,488,005	857,858	906,536	798,456	394,241	3,921	4,949	160,983	3,642	--	133,309
Veneer logs, bolts	727,852 13.1	637,607	19,524	6,777	56,203	4,710	520	1,260	1,060	5	186	--
Pulpwood	22,452 .4	429	--	--	2,309	--	--	--	--	--	19,714	--
Poles	9,650 .2	6,868	2,695	--	87	--	--	--	--	--	--	--
Piling	2,203 (g/)	1,107	936	--	--	--	--	--	--	--	160	--
Mine timbers	1,339 (g/)	--	--	--	--	--	--	--	--	--	--	1,339
Split products	24,844 .4	--	--	23,354	--	27	--	--	682	--	--	781
Shingles, sawed shakes	2,464 .1	--	--	2,256	--	70	--	--	138	--	--	--
Fuelwood	27,123 .5	--	--	--	--	--	--	--	--	2,157	167	24,799
Round posts	112 (g/)	--	3	5	22	--	--	--	25	1	--	56
All commodities	5,569,939 Percent 100.0	2,134,016 Percent 38.3	881,016 Percent 15.8	938,928 Percent 16.8	857,077 Percent 15.4	399,048 Percent 7.2	4,441 Percent 0.1	6,209 Percent 0.1	162,888 Percent 2.9	5,805 Percent 0.1	20,227 Percent 0.4	160,284 Percent 2.9

<sup>1</sup>Includes both live and dead timber from both commercial and noncommercial forest land.<sup>2</sup>Includes Jeffrey pine.<sup>3</sup>Includes 271 MBF of giant sequoia.<sup>4</sup>Includes white, red, and grand fir.<sup>5</sup>Includes western white pine.<sup>6</sup>Includes estimates for nonreporting operators plus reported volume for which species information was unknown.<sup>7</sup>International 1/4-inch log rule.<sup>8</sup>Less than 0.1 percent.

Table 2.--Timber harvest in California, by county of origin and commodity, 1962<sup>1</sup>

(Thousand board feet, International 1/4-inch log rule)

County	Total volume	Sawlogs	Veneer logs and bolts	Split products <sup>2</sup>	Miscellaneous <sup>3</sup>
Alameda	157	--	--	--	157
Alpine	416	416	--	--	--
Amador	34,825	32,891	(4/)	(4/)	1,934
Butte	37,168	36,866	(4/)	(4/)	302
Calaveras	72,899	71,698	(4/)	--	1,201
Colusa	87	--	--	--	87
Contra Costa	228	--	--	--	228
Del Norte	301,966	196,638	101,536	3,736	56
El Dorado	184,017	182,844	(4/)	--	1,173
Fresno	115,806	115,185	--	76	545
Glenn	29,995	29,929	--	--	66
Humboldt	1,396,366	1,022,129	357,478	12,044	4,715
Kern	3,317	3,124	--	--	193
Kings	44	--	--	--	44
Lake	33,150	32,397	--	--	753
Lassen	147,560	147,163	--	(4/)	397
Los Angeles	147	--	--	--	147
Madera	79,407	79,272	--	11	124
Marin	99	--	--	--	99
Mariposa	2,903	1,937	--	--	966
Mendocino	604,671	546,199	49,037	6,002	3,433
Merced	5,623	5,564	--	--	59
Modoc	33,360	33,238	(4/)	(4/)	122
Mono	11,856	11,856	--	--	--
Monterey	8,298	227	--	983	7,088
Napa	18,658	18,150	--	--	508
Nevada	75,207	72,722	--	(4/)	2,485
Orange	57	--	--	--	57
Placer	133,064	131,646	(4/)	143	1,275
Plumas	205,882	204,579	--	228	1,075
Riverside	5,291	5,215	--	--	76
Sacramento	108	--	--	--	108
San Benito	108	--	--	--	108
San Bernardino	12,168	12,041	--	--	127
San Diego	503	53	--	--	450
San Joaquin	175	--	--	--	175
San Luis Obispo	6,349	32	--	--	6,317
San Mateo	25,622	25,572	--	--	50
Santa Barbara	203	--	--	--	203
Santa Clara	310	156	--	--	154
Santa Cruz	28,415	26,836	(4/)	120	1,459
Shasta	385,951	382,822	(4/)	(4/)	3,129
Sierra	75,024	74,948	--	(4/)	76
Siskiyou	372,925	372,209	(4/)	(4/)	716
Solano	41	--	--	--	41
Sonoma	138,763	127,123	(4/)	2,359	9,281
Stanislaus	152	--	--	--	152
Sutter	52	--	--	--	52
Tehama	145,908	144,719	(4/)	118	1,071
Trinity	291,119	288,240	(4/)	--	2,879
Tulare	62,028	60,465	--	550	1,013
Tuolumne	35,621	34,274	--	(4/)	1,347
Ventura	4,752	4,191	--	--	561
Yolo	454	--	--	--	454
Yuba	69,735	69,632	--	(4/)	103
Undistributed <sup>5</sup>	370,929	146,702	219,801	1,050	3,376
Total	5,569,939	4,751,900	727,852	27,420	62,767

<sup>1</sup>Includes both live and dead timber from both commercial and noncommercial forest land.<sup>2</sup>Includes split products, shingle and shake logs and bolts and posts.<sup>3</sup>Includes round pulpwood, poles, piling, mine timbers and fuelwood.<sup>4</sup>Combined with "Undistributed" to avoid disclosure of individual producers.<sup>5</sup>Includes estimates for nonreporting operators plus reported volume for which county of origin was unknown and volumes combined to avoid disclosure of individual operators.

Table 3.--Sawlog production in California, by species and county of origin, 1962<sup>1</sup>

County	Total volume	Douglas-fir	Ponderosa pine <sup>2</sup>	Redwood	True firs <sup>3</sup>	Sugar pine <sup>4</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods
	MBF <sup>5</sup>	Percent								
Alpine	416	(6/)	--	--	156	--	--	--	--	--
Amador	32,891	0.7	3,685	--	3,776	--	--	--	3,009	--
Butte	36,866	.8	5,667	--	7,923	2,393	--	--	1,441	--
Calaveras	71,698	1.5	2,201	--	21,323	13,460	--	--	13,418	--
Del Norte	196,638	4.1	81,890	102,578	976	4,575	1,498	1,919	3,136	--
El Dorado	182,844	3.8	19,744	--	59,583	23,482	--	--	22,382	--
Fresno	115,185	2.4	762	--	39,005	17,932	--	--	4,794	--
Glenn	29,929	.6	8,401	--	7,809	3,316	--	--	310	--
Humboldt	1,022,129	21.5	539,310	435,887	25,190	13,836	475	3,030	297	--
Kern	3,124	.1	--	--	--	--	--	--	--	--
Lake	32,397	.7	12,392	--	548	8,506	--	--	68	--
Lassen	147,163	3.1	7,772	--	59,478	8,851	--	--	2,033	--
Madera	79,272	1.7	--	--	39,691	12,102	--	--	2,793	--
Mariposa	1,937	(6/)	--	--	1,926	11	--	--	--	--
Mendocino	546,199	11.5	222,926	292,091	6,477	5,330	--	--	276	--
Merced	5,564	.1	156	--	208	--	--	--	--	--
Modoc	33,238	.7	--	--	12,896	--	--	--	3,062	--
Mono	11,856	.2	--	--	2,080	--	--	--	--	--
Monterey	18,227	(6/)	--	--	--	--	--	--	227	--
Napa	18,150	.4	2,692	--	8,380	--	--	--	1,342	--
Nevada	72,722	1.5	11,458	--	24,215	3,276	--	--	4,240	--
Placer	131,646	2.8	19,229	--	59,910	14,332	--	--	6,870	--
Plumas	204,579	4.3	29,066	--	91,389	24,231	--	--	15,767	--
Riverside	5,215	.1	--	--	1,040	521	--	--	1	--
San Bernardino	12,041	.3	--	--	1,560	520	--	--	--	--
San Diego	53	(6/)	--	--	18	--	--	--	9	--
San Luis Obispo	32	(6/)	--	--	--	--	--	--	32	--
San Mateo	25,572	.5	5,320	20,252	--	--	--	--	--	--
Santa Clara	156	(6/)	--	156	--	--	--	--	--	--
Santa Cruz	26,836	.6	6,908	19,928	--	--	--	--	--	--
Shasta	382,822	8.1	84,552	--	89,031	55,060	--	--	40,432	2,602
Sierra	74,948	1.6	1,887	--	19,241	40,335	778	--	1,451	--
Siskiyou	372,209	7.8	130,608	--	92,549	33,393	--	--	19,042	1,040
Sonoma	127,123	2.7	84,630	35,529	5,012	1,640	--	--	--	--
Tehama	144,719	3.0	24,932	--	33,607	39,364	--	--	3,852	--
Trinity	288,240	6.1	152,142	--	29,981	36,380	9	--	5,511	--
Tulare	60,465	1.3	--	115	23,304	9,239	--	--	2,298	--
Tuolumne	34,274	.7	851	--	10,677	4,622	--	--	569	--
Ventura	4,191	.1	--	--	1,040	--	--	--	--	--
Yuba	69,632	1.5	18,412	--	20,212	10,986	1,161	--	2,311	--
Unknown <sup>7</sup>	13,393	.3	10,412	--	171	1,904	--	--	10	--
Undistributed <sup>8</sup>	133,309	2.8	--	--	--	--	--	--	--	--
All counties <sup>9</sup>	4,751,900	100.0	1,488,005	906,536	798,456	394,241	3,921	4,949	160,983	3,642
			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
			31.3	19.1	16.8	8.3	0.1	0.1	3.4	0.1

<sup>1</sup>Includes both live and dead timber.<sup>2</sup>Includes Jeffrey pine.<sup>3</sup>Includes white, red, and grand fir.<sup>4</sup>Includes western white pine.<sup>5</sup>International 1-1/4-inch log rule.<sup>6</sup>Less than 0.1 percent of total volume.<sup>7</sup>County of origin was unknown by some reporting operators.<sup>8</sup>Estimated for nonreporting operators.<sup>9</sup>Species figures do not include 133,309 M feet of

"undistributed" volume.

Table 4.--Sawlog exports in California, by species, 1962

Species	21 active exporters reporting	9 active exporters not reporting
	<hr/> MBF <sup>1</sup> <hr/>	
Softwoods:		
Douglas-fir	57,423	--
Ponderosa pine <sup>2</sup>	14,507	--
Redwood <sup>3</sup>	1,582	--
True fir <sup>3</sup>	30,790	--
Sugar pine <sup>4</sup>	9,422	--
Western hemlock	351	--
Sitka spruce	--	--
Other softwoods	5,984	--
Hardwoods	--	--
Total	120,059	<u>5</u> /10,117

<sup>1</sup>International 1/4-inch log rule.

<sup>2</sup>Includes Jeffrey pine.

<sup>3</sup>Includes white, red, and grand fir.

<sup>4</sup>Includes western white pine.

<sup>5</sup>Estimated for active exporters not reporting.



Table 5.--Sawlog receipts in California, by mill size-class and species, 1962

Mill size-class (based on 1962 receipts) <sup>1</sup>	Active sawmills	Total volume	Douglas- fir	Ponderosa pine <sup>2</sup>	Redwood	True firs <sup>3</sup>	Sugar pine <sup>4</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods
	Number	MBF <sup>1</sup> Percent reported									
50 MM and over	10	863,821 19.2	165,277	183,892	219,526	155,345	112,886	--	--	26,895	--
25.0-49.9 MM	49	1,790,612 39.8	573,779	327,477	358,505	306,829	181,574	3,085	1,265	38,096	2
15.0-24.9 MM	43	797,969 17.7	329,282	138,455	114,621	127,916	53,175	73	1,413	33,034	--
10.0-14.9 MM	47	596,321 13.2	196,603	117,274	127,133	93,551	25,768	37	452	35,503	--
5.0- 9.9 MM	43	331,164 7.4	116,827	57,673	57,607	68,803	8,434	251	1,803	19,766	--
1.0- 4.9 MM	49	111,314 2.5	44,043	17,618	26,596	15,090	2,815	125	16	1,371	3,640
500-999 M	5	3,876 .1	3,089	417	216	--	154	--	--	--	--
50-499 M	16	3,225 .1	1,681	432	728	113	11	--	--	260	--
1- 49 M	13	230 (5/)	--	116	21	18	1	--	--	74	--
Total reported	275	4,498,532 100.0	1,430,581	843,354	904,953	767,665	384,818	3,571	4,949	154,999	3,642
Undistributed <sup>6</sup>	22	123,292	--	--	--	--	--	--	--	--	--
All size- classes	297	4,621,824	--	--	--	--	--	--	--	--	--
Percent reported			Percent 31.8	Percent 18.8	Percent 20.1	Percent 17.0	Percent 8.6	Percent 0.1	Percent 0.1	Percent 3.4	Percent 0.1

<sup>1</sup>MM=million board feet; M=thousand board feet, both International 1/4-inch log rule.

<sup>2</sup>Includes Jeffrey pine.

<sup>3</sup>Includes white, red, and grand fir.

<sup>4</sup>Includes western white pine.

<sup>5</sup>Less than 0.1 percent.

<sup>6</sup>Estimated for active nonreporting sawmills.

Table 6.--Sawlog receipts at sawmills in California, by species and county, 1962

County	Active sawmills	Total volume	Douglas-fir	Ponderosa pine <sup>1</sup>	Redwood	True firs <sup>2</sup>	Sugar pine <sup>3</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods
	No.	MBF <sup>4</sup> Percent reported									
Amador-Calaveras <sup>5</sup>	4	119,701 2.7	9,982	38,064	--	28,733	18,438	--	--	24,484	--
Butte	6	70,657 1.6	15,929	16,731	--	25,622	10,088	--	--	2,287	--
Del Norte	11	147,373 3.3	43,128	--	100,088	976	104	1,148	1,919	10	--
El Dorado	7	137,268 3.1	13,032	47,546	--	45,856	18,964	--	--	11,870	--
Fresno	7	53,607 1.2	762	10,053	--	31,773	7,960	--	--	3,059	--
Glenn-Tehama <sup>5</sup>	3	186,635 4.1	45,183	68,152	--	35,902	33,708	--	--	3,690	--
Humboldt <sup>5</sup>	52	1,027,075 22.8	561,757	7,488	414,963	22,999	16,038	484	3,030	316	--
Inyo-Kern <sup>5</sup>	3	11,891 .3	--	9,811	--	2,080	--	--	--	--	--
Lassen	5	99,565 2.2	2,023	43,719	--	51,015	1,691	--	--	1,117	--
Madera	5	79,109 1.8	--	24,967	--	39,669	11,707	--	--	2,766	--
Mariposa-Merced <sup>5</sup>	4	16,541 .4	156	14,086	--	208	2,091	--	--	--	--
Mendocino	39	594,489 13.2	227,715	33,926	312,389	7,004	13,112	--	--	343	--
Modoc	6	60,672 1.3	3,209	31,369	--	21,723	--	--	--	4,371	--
Monterey-San Luis <sup>5</sup>	10	45,594 1.0	9,887	--	35,448	--	--	--	--	259	--
Obispo-Santa Cruz <sup>5</sup>	15	131,400 2.9	84,385	312	37,063	8,132	1,508	--	--	--	--
Napa-Sonoma <sup>5</sup>											
Nevada	8	79,550 1.8	17,319	27,113	--	28,927	1,979	--	--	4,212	--
Placer	7	91,525 2.0	13,387	25,954	--	38,263	9,496	--	--	4,425	--
Plumas	10	239,004 5.3	29,433	47,269	--	102,720	43,799	--	--	15,783	--
Riverside-											
San Bernardino <sup>5</sup>	4	24,536 .5	--	19,854	--	3,640	1,041	--	--	1	--
Sacramento-San	8	68,893 1.5	1,468	27,577	--	22,417	7,493	--	--	9,938	--
Joaquin-Tuolumne <sup>5</sup>	3	53 (6/)	--	26	--	18	--	--	--	9	--
San Diego											
San Mateo-	3	7,228 .2	2,340	--	4,888	--	--	--	--	--	--
Santa Clara <sup>5</sup>	13	385,290 8.6	85,795	111,957	--	91,146	56,507	--	--	36,243	3,642
Shasta	16	400,631 8.9	141,563	114,997	--	84,536	41,605	--	--	17,930	--
Siskiyou	3	51,853 1.2	--	5,448	--	7,331	37,825	778	--	471	--
Sierra											
Trinity	13	167,991 3.7	102,271	31,092	--	12,716	18,619	--	--	3,293	--
Tulare	4	112,926 2.5	--	60,677	114	30,558	17,516	--	--	4,061	--
Yuba	6	87,475 1.9	19,857	25,166	--	23,701	13,529	1,161	--	4,061	--
Total reported	275	4,498,532 100.0	1,430,581	843,354	904,953	767,665	384,818	3,571	4,949	154,999	3,642
Undistributed <sup>7</sup>	22	123,292 --	--	--	--	--	--	--	--	--	--
Total, all counties	297	4,621,824 --	--	--	--	--	--	--	--	--	--
Percent reported			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
			31.8	18.7	20.1	17.1	8.6	0.1	0.1	3.4	0.1

<sup>1</sup>Includes Jeffrey pine.<sup>2</sup>Includes white, red, and grand fir.<sup>3</sup>Includes western white pine.<sup>4</sup>International 1/4-inch log rule.<sup>5</sup>Combined to avoid disclosure of individual sawmills.<sup>6</sup>Less than 0.1 percent.<sup>7</sup>Estimated for active nonreporting sawmills.

Table 7.--*Production of sawlogs from live and dead timber in California, by species, 1962*

Species	Total volume		Live timber volume		Dead timber volume	
	MBF <sup>1</sup>	Percent reported <sup>2</sup>	MBF <sup>1</sup>	Percent reported <sup>3</sup>	MBF <sup>1</sup>	Percent reported <sup>4</sup>
Douglas-fir	1,488,005	32.2	1,454,655	33.0	33,350	16.4
Ponderosa pine <sup>5</sup>	857,858	18.6	781,012	17.7	76,846	37.7
Redwood	906,536	19.6	888,719	20.1	17,817	8.7
True fir <sup>6</sup>	798,456	17.3	751,909	17.0	46,547	22.8
Sugar pine <sup>7</sup>	394,241	8.5	371,247	8.4	22,994	11.3
Western hemlock	3,921	.1	3,225	.1	696	.3
Spruce, sitka	4,949	.1	4,949	.1	--	--
Other softwoods	160,983	3.5	155,266	3.5	5,717	2.8
Oaks <sup>8</sup>	3,642	.1	3,642	.1	--	--
Total reported	4,618,591	100.0	4,414,624	100.0	203,967	100.0
Undistributed <sup>9</sup>	133,309	--	--	--	--	--
All species	4,751,900	--	--	--	--	--

<sup>1</sup>International 1/4-inch log rule.

<sup>2</sup>Based on total volume.

<sup>3</sup>Based on live volume only.

<sup>4</sup>Based on dead volume only.

<sup>5</sup>Includes Jeffrey pine.

<sup>6</sup>Includes white, red, and grand fir.

<sup>7</sup>Includes western white pine.

<sup>8</sup>No other hardwoods reported.

<sup>9</sup>Estimated for nonreporting operators.

Table 8.--Peeler log production in California, by county of origin and species, 1962

County	Total volume	MBF <sup>4</sup>										
		Douglas- fir	Ponderosa pine <sup>1</sup>	Redwood	True firs <sup>2</sup>	Sugar pine <sup>3</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods		
Amador-Butte-Calaveras- El Dorado-Placer-Modoc <sup>5</sup> Del Norte Humboldt Mendocino Santa Cruz-Sonoma <sup>5</sup> Shasta-Tehama-Trinity <sup>5</sup> Siskiyou	MBF <sup>4</sup>											
	Percent											
	51,734	7.1	11,218	2,118	--	38,398	--	--	--	--	--	
	101,536	14.0	96,095	1,179	1,575	114	--	520	1,248	780	25	
	357,478	49.1	350,434	--	5,202	1,664	--	--	12	--	166	
	49,037	6.7	49,037	--	--	--	--	--	--	--	--	
	14,901	2.1	14,621	--	--	--	--	--	--	280	--	
	73,607	10.1	53,467	8,869	--	9,907	1,364	--	--	--	--	
All counties	79,559	10.9	62,735	7,358	--	6,120	3,346	--	--	--	--	
	727,852	100.0	637,607	19,524	6,777	56,203	4,710	520	1,260	1,060	191	
			Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
		87.6	2.7	0.9	7.7	0.6	0.1	0.2	0.2	0.2	(6/)	

<sup>1</sup>Includes Jeffrey pine.

<sup>2</sup>Includes white, red, and grand fir.

<sup>3</sup>Includes western white pine.

<sup>4</sup>International 1/4-inch log rule.

<sup>5</sup>Combined to avoid disclosure of individual operators.

<sup>6</sup>Less than 0.1 percent.

Table 9.--Peeler log receipts at plants in California, by species and county, 1962<sup>1</sup>

County	Active plants	Total volume	Douglas-fir	Ponderosa pine <sup>2</sup>	Redwood	True firs <sup>3</sup>	Sugar pine <sup>4</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods
	No.	MBF <sup>5</sup> Percent									
Amador-Butte-Calaveras-El Dorado <sup>6</sup>	4	50,754 7.1	11,218	3,297	--	36,239	--	--	--	--	--
Del Norte	7	105,897 14.9	103,784	--	40	114	--	520	1,248	--	191
Humboldt	16	359,262 50.5	347,812	--	6,737	4,701	--	--	12	--	--
Mendocino-Sonoma-Santa Cruz <sup>6</sup>	5	63,938 9.0	63,658	--	--	--	--	--	--	280	--
Shasta-Tehama-Trinity <sup>6</sup>	3	63,553 8.9	46,013	8,349	--	8,243	948	--	--	--	--
Siskiyou	4	68,618 9.6	54,898	7,878	--	2,080	3,762	--	--	--	--
All counties	39	712,022 100.0	627,383 88.1	19,524 2.7	6,777 1.0	51,377 7.2	4,710 .7	520 .1	1,260 .2	280 (7/)	191 (7/)

<sup>1</sup>Does not include 15,830 MBF exported from the State.

<sup>2</sup>Includes Jeffrey pine.

<sup>3</sup>Includes white, red, and grand fir.

<sup>4</sup>Includes western white pine.

<sup>5</sup>International 1/4-inch log rule.

<sup>6</sup>Combined to avoid disclosure of individual plants.

<sup>7</sup>Less than 0.1 percent.



Table 10.--Peeler log receipts in California, by plant size-class and species, 1962<sup>1</sup>

Plant size-class <sup>2</sup> (basis: 1962 receipts)	Active plants	Total volume	Douglas-fir	Ponderosa pine <sup>3</sup>	Redwood	True firs <sup>4</sup>	Sugar pine <sup>5</sup>	Western hemlock	Sitka spruce	Other softwoods	Hardwoods
—MBF <sup>2</sup> —											
25 MM and over	13	448,949 63.0	395,520	8,947	2,028	38,564	3,670	--	220	--	--
15 MM - 24.9 MM	7	132,290 18.6	117,181	7,280	4,709	2,080	1,040	--	--	--	--
10 MM - 14.9 MM	7	89,149 12.5	81,926	--	--	5,663	--	520	1,040	--	--
5 MM - 9.9 MM	3	25,376 3.6	22,048	--	--	3,328	--	--	--	--	--
1 MM - 4.9 MM	5	14,365 2.0	9,440	3,297	--	1,628	--	--	--	--	--
Less than 1 MM	4	1,893 .3	1,268	--	40	114	--	--	--	280	191
All plants	39	712,022 100.0	627,383	19,524	6,777	51,377	4,710	520	1,260	280	191
			Percent 88.1	Percent 2.7	Percent 1.0	Percent 7.2	Percent .7	Percent .1	Percent .2	Percent (6/)	Percent (5/)

<sup>1</sup>Does not include 15,830 MBF exported from the State.<sup>2</sup>MM= million board feet; M= thousand board feet, International 1/4-inch log rule.<sup>3</sup>Includes Jeffrey pine.<sup>4</sup>Includes white, red, and grand fir.<sup>5</sup>Includes western white pine.<sup>6</sup>Less than 0.1 percent.

Table 11.--Peeler log production from live and dead timber in California, by species, 1962

Species	Total volume		Live timber volume		Dead timber volume	
	MBF <sup>1</sup>	Percent <sup>2</sup>	MBF <sup>1</sup>	Percent <sup>3</sup>	MBF <sup>1</sup>	Percent <sup>4</sup>
Softwoods:						
Douglas-fir	637,607	87.6	630,926	87.5	6,681	97.4
Ponderosa pine <sup>5</sup>	19,524	2.7	19,518	2.7	6	.1
Redwood	6,777	.9	6,777	.9	--	--
True firs <sup>6</sup>	56,203	7.7	56,083	7.8	120	1.8
Sugar pine <sup>7</sup>	4,710	.7	4,683	.6	27	.4
Western hemlock	520	.1	520	.1	--	--
Sitka spruce	1,260	.2	1,260	.2	--	--
Other softwoods	1,060	.1	1,037	.2	23	.3
Total softwoods	727,661	100.0	720,804	100.0	6,857	100.0
Hardwoods	191	( <u>8</u> /)	191	( <u>8</u> /)	--	--
All species	727,852		720,995		6,857	
	Percent		Percent		Percent	
	100.0		99.1		.9	

<sup>1</sup>International 1/4-inch log rule.<sup>2</sup>Based on total volume.<sup>3</sup>Based on live volume only.<sup>4</sup>Based on dead volume only.<sup>5</sup>Includes Jeffrey pine.<sup>6</sup>Includes white, red, and grand fir.<sup>7</sup>Includes western white pine.<sup>8</sup>Less than 0.1 percent of total volume, all species.



Table 12.--Fiber and board plant receipts in California, by species group, 1962

Commodity and species groups	Plants	Total volume		Volume received		
				Chips	Pulpwood	Miscellaneous <sup>1</sup>
	Number	Bone-dry unit <sup>2</sup>	Percent	Bone-dry unit <sup>2</sup>	Bone-dry unit <sup>2</sup>	Bone-dry unit <sup>2</sup>
Fiber materials:	4					
Softwoods		10,361	1.8	5,944	--	4,417
Hardwoods		--	--	--	--	--
Unknown <sup>3</sup>		16,850	3.0	8,900	--	7,950
Total		27,211	4.8	14,844	--	12,367
Particleboard:	4					
Softwoods		63,976	11.3	41,450	--	22,526
Hardwoods		--	--	--	--	--
Unknown <sup>3</sup>		95,598	16.8	95,598	--	--
Total		159,574	28.1	137,048	--	22,526
Hardwood, pulp and paper <sup>4</sup> :	3					
Softwoods		313,476	55.2	307,864	5,612	--
Hardwoods		50,162	8.9	--	50,162	--
Unknown <sup>3</sup>		17,115	3.0	17,115	--	--
Total		380,753	67.1	324,979	55,774	--
All products:	11					
Softwoods		387,813	68.3	355,258	5,612	26,943
Hardwoods		50,162	8.9	--	50,162	--
Unknown <sup>3</sup>		129,563	22.8	121,613	--	7,950
Total, all species		567,538		476,871	55,774	34,893
		Percent		Percent	Percent	Percent
		100.0		84.0	9.8	6.2

<sup>1</sup>Includes veneer cores, plant residues (slabs, trimmings, shavings, sawdust), and wood flour.

<sup>2</sup>A bone-dry unit = 2,400 pounds, oven-dry chips of all species; about one standard cord.

<sup>3</sup>Chips, trimmings, shavings, sawdust, and wood flour frequently are an unsegregated mixture of several species.

<sup>4</sup>Combined to avoid disclosure of individual plants. Excludes mills operating on purchased pulp or on pulp imported from outside the State.

Table 13.--*Production of poles and piling in California, by county and species, 1962*

County	Total volume			Douglas-fir	Ponderosa pine <sup>1</sup>	True firs <sup>2</sup>	Eucalyptus
	<i>M cu. ft.</i>	<i>MBF<sup>3</sup></i>	<i>Percent</i>	<i>MBF<sup>3</sup></i>			
El Dorado	69	318	2.7	226	92	--	--
Humboldt	84	388	3.3	388	--	--	--
Lake	9	45	.4	45	--	--	--
Lassen	67	310	2.6	--	310	--	--
Mariposa	99	462	3.9	67	308	87	--
Mendocino	451	2,135	18.0	2,135	--	--	--
Monterey	35	160	1.3	--	--	--	160
Nevada	426	2,048	17.3	898	1,150	--	--
Placer	85	393	3.3	301	92	--	--
Plumas	190	875	7.4	608	267	--	--
Shasta	463	2,132	18.0	1,248	884	--	--
Sonoma	23	112	.9	112	--	--	--
Trinity	538	2,475	20.9	1,947	528	--	--
	2,539	11,853 <sup>4</sup>	100.0	7,975	3,631	87	160
All counties				<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
				67.3	30.6	0.7	1.4

<sup>1</sup>Includes Jeffrey pine.<sup>2</sup>Includes white and red fir.<sup>3</sup>International 1/4-inch log rule.<sup>4</sup>Includes 84,305 poles and 766,000 linear feet of piling.

Table 14.--Production of logs and bolts for split products in California, by county and commodity, 1962

County	Total volume	Split fence posts	Split fence rails	Grape stakes	Bean poles	Split shakes	Paling	Pickets	Misc. split products <sup>1</sup>
	MBF <sup>2</sup> Percent reported								
Butte-Yuba <sup>3</sup>	62	22	--	40	--	--	--	--	--
Del Norte	3,646	164	55	2,687	--	--	740	--	--
Fresno	34	11	1	--	--	--	--	--	22
Humboldt	10,167	1,639	601	3,591	8	377	3,805	137	9
Lassen-Modoc <sup>3</sup>	33	32	--	--	--	1	--	--	--
Madera-Tuolumne <sup>3</sup>	29	8	--	--	--	21	--	--	4/
Mendocino	5,905	1,198	256	3,319	106	596	254	3	173
Monterey	983	1,176	46	82	--	16	598	--	65
Placer	26	25	--	--	--	1	--	--	--
Plumas	228	211	10	7	--	--	--	--	--
Santa Cruz	119	53	--	41	--	5	--	5	15
Shasta-Tehama <sup>3</sup>	149	148	--	--	--	1	--	--	--
Sierra-Nevada <sup>3</sup>	42	30	5	--	--	6	--	1	--
Sonoma	2,359	636	18	510	85	1,053	57	(5/)	--
Tulare	281	47	2	--	--	17	--	--	6/215
Total reported	24,063	4,400	994	10,277	199	2,094	5,454	146	499
Undistributed <sup>7</sup>	781	--	--	--	--	--	--	--	--
All counties	24,844	--	--	--	--	--	--	--	--
Percent reported		Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
		18.3	4.1	42.7	0.8	8.7	22.7	0.6	2.1

<sup>1</sup>Miscellaneous split products include patio blocks, ties, hewn redwood cants, slabs and cross-arms.

<sup>2</sup>International 1/4-inch log rule.

<sup>3</sup>Combined to avoid disclosure of individual operators.

<sup>4</sup>Includes 45 MBF of "hollywood boards."

<sup>5</sup>Less than 500 board feet.

<sup>6</sup>Includes 177 MBF of "hollywood boards."

<sup>7</sup>Estimated for nonreporting producers.

Table 15.--*Production of logs and bolts for split products in California, by county of origin and species, 1962*

County of origin <sup>1</sup>	Total volume		Cedar <sup>2</sup>	Redwood <sup>3</sup>	Sugar pine	Other softwoods
	MBF <sup>4</sup>	Percent reported	MBF <sup>4</sup>			
Butte-Yuba <sup>5</sup>	62	0.3	22	--	--	40
Del Norte	3,646	15.2	--	3,646	--	--
Fresno	34	.1	12	22	--	--
Humboldt	10,167	42.3	76	10,091	--	--
Lassen-Modoc <sup>5</sup>	33	.1	20	--	1	12
Madera-Tuolumne <sup>5</sup>	29	.1	11	--	18	--
Mendocino	5,905	24.5	--	5,905	--	--
Monterey	983	4.1	--	983	--	--
Placer	26	.1	26	--	--	--
Plumas	228	.9	228	--	--	--
Santa Cruz	119	.5	--	119	--	--
Shasta-Tehama <sup>5</sup>	149	.6	148	--	1	--
Sierra-Nevada <sup>5</sup>	42	.2	35	--	7	--
Sonoma	2,359	9.8	--	2,359	--	--
Tulare	281	1.2	51	230	--	--
Total reported	24,063	100.0	<u>2</u> /629	<u>3</u> /23,355	27	52
Undistributed <sup>6</sup>	781	--	--	--	--	--
All counties	24,844	--	--	--	--	--
Percent reported			Percent 2.6	Percent 97.1	Percent 0.1	Percent 0.2

<sup>1</sup>County of origin is generally the same as county of receipt for split products. Only four operators reported receipts from across county lines.

<sup>2</sup>Includes 553 MBF of incense-cedar and 76 MBF of western red cedar.

<sup>3</sup>Includes 252 MBF of giant sequoia.

<sup>4</sup>International 1/4-inch log rule.

<sup>5</sup>Combined to avoid disclosure of individual operators.

<sup>6</sup>Estimated for nonreporting producers.

Table 16.--*Production of logs and bolts for shingles and sawed shakes in California, by county, live and dead timber, and species, 1962*

County of harvest and type of timber	Active mills	Total volume	Redwood <sup>1</sup>	Sugar pine	Cedar <sup>2</sup>
	<i>Number</i>	<i>Percent</i>	<i>———— MBF<sup>3</sup> ————</i>		
Del Norte-Mendocino <sup>4</sup>	4				
Live timber		0.6 16	16	--	--
Dead timber		5.4 132	57	--	75
Unknown <sup>5</sup>		1.5 36	36	--	--
Total		7.5 184	109	--	75
Humboldt:	3				
Live timber		37.7 930	930	--	--
Dead timber		37.7 930	930	--	--
Unknown <sup>5</sup>		.6 16	16	--	--
Total		76.0 1,876	1,876	--	--
Fresno-Placer-Tehama <sup>4</sup>	4				
Live timber		2.8 70	--	29	41
Dead timber		2.6 63	--	41	22
Unknown <sup>5</sup>		-- --	--	--	--
Total		5.4 133	--	70	63
Tulare:	4				
Live timber		3.1 76	76	--	--
Dead timber		6.2 153	153	--	--
Unknown <sup>5</sup>		1.7 42	42	--	--
Total		11.0 271	271	--	--
All counties:	15				
Live timber		44.3 1,092	1,022	29	41
Dead timber		51.9 1,278	1,140	41	97
Unknown <sup>5</sup>		3.8 94	94	--	--
		2,464	<sup>1</sup> / <sub>2</sub> 2,256	70	138
Total, all species		<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
		100.0	91.5	2.9	5.6

<sup>1</sup>Includes 271 MBF of giant sequoia produced in Tulare County.

<sup>2</sup>Western redcedar in Del Norte County; incense-cedar in all other counties.

<sup>3</sup>International 1/4-inch log rule.

<sup>4</sup>Combined to avoid disclosure of individual operators.

<sup>5</sup>Information on live and dead timber not reported by some operators.



Table 17.--Fuelwood production in California, by region of origin and species, 1962<sup>1</sup>

Commodity	Total volume			Oaks	Madrone and pepperwood	Undistributed hardwoods <sup>2</sup>
	<i>MBF</i>	<i>Cords</i>	<i>Percent</i>	<i>Cords</i>		
Fuelwood	21,550	52,054	--	--	--	--
Charcoal:						
Coast region <sup>3</sup>	4,540	16,632	81.5	4,280	612	11,740
Pine region <sup>4</sup>	1,033	3,782	18.5	3,622	--	160
	5,573	20,414	100.0	7,902	612	11,900
Total, all regions			<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
			100.0	38.7	3.0	58.3
Total, all commodities	27,123	72,468	--	--	--	--

<sup>1</sup>Production from roundwood only. An additional 2,183,000 cords of plant residues were used for fuel and charcoal production.

<sup>2</sup>Includes all material for which species was not reported.

<sup>3</sup>Includes Humboldt, San Benito, and San Luis Obispo counties.

<sup>4</sup>Includes Tulare, Calaveras, and El Dorado counties.

Table 18.--Timber harvest of roundwood in California, by product, 1962

Product <sup>1</sup>	Volume			
	<i>MBF</i> <sup>2</sup>	<i>Percent</i>	<i>M cu. ft.</i>	<i>Percent</i>
Sawlogs	4,751,900	85.3	688,681	86.2
Veneer logs and bolts	727,852	13.1	94,526	11.8
Pulpwood	22,452	.4	4,048	.5
Piling	2,203	( <u>3</u> /)	441	.1
Poles	9,650	.2	2,098	.3
Mine timbers	1,339	( <u>3</u> /)	279	( <u>3</u> /)
Shingle and shake, logs and bolts	2,464	.1	301	( <u>3</u> /)
Split products	24,844	.4	3,030	.4
Fuelwood	27,123	.5	5,904	.7
Round posts	112	( <u>3</u> /)	10	( <u>3</u> /)
Total	5,569,939	100.0	799,318	100.0

<sup>1</sup>Includes both live and dead timber from both commercial and non-commercial forest land.

<sup>2</sup>International 1/4-inch log rule. Volumes were reported in local use log rules and other units of measure and were converted to International 1/4-inch log rule and to cubic foot equivalents as a common base.

<sup>3</sup>Less than 0.1 percent.

